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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/937,524	09/25/2001	Alfred Hagemeyer	RUH-284	9609

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EXAMINER

COOKE, COLLEEN P

ART UNIT	PAPER NUMBER
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1754

DATE MAILED: 02/17/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/937,524

Applicant(s)

HAGEMEYER ET AL. 

Examiner

Colleen P Cooke

Art Unit

1754

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 June 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3, 5-10, 12-14 and 16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3, 5-10, 12-14, and 16 is/are rejected.
- 7) ☒ Claim(s) 1, 5-10, and 12-13 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other:

Claim Objections

Claims 1, 5-10, and 12-13 are objected to because of the following informalities:

Claim 1 and 5-7 contain several limitations which, as written, are not required by the claim or do not further limit the article. For example in claim 1, there are clauses following "optionally" or materials which "may also be present" or processing steps such as "obtained by" or "carrying out reduction" or "additionally applying". Applicant is simply being advised of this and the fact that as these limitations are not required or further limiting the article claim, they will not be further treated.

Claims 8-10 and 12-13 are objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. Claim 8, from which the other claims depend, limits the temperature range for reduction to 300-600°C. Claim 8 depends from claim 1 which has already limited this range to 300-500°C. Therefore claim 1 does not allow for the additional temperatures included in the range of claim 8 and thus claim 8 fails to further limit claim 1.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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Claims 1-3, 5-10, 12-14, and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Couves et al. (EP 0839793 A1), in view of Bankmann et al. ("Forming of High Surface Area TiO_2 to Catalyst Supports", pp. 225-242).

Regarding claims 1 and 8, Couves et al. teaches a catalyst is made by impregnating a palladium compound onto a support (page 2, lines 28-29), where the support may be porous titania (page 3, lines 10-11), reducing at elevated temperatures of 100-500 °C until the material is reduced (page 4, lines 13-14), and applying an alkali metal compound (page 3, lines 38-41), which is taught as being done at any suitable stage of preparation. Couves et al. does not specifically teach that the titania support is produced by flame hydrolysis of TiCl_4 .

Bankmann et al. teaches catalyst support materials and specifically teaches that titania supports produced by flame hydrolysis of TiCl_4 are known in the art and known to be used as catalyst supports.

It would have been obvious to modify the catalyst of Couves et al. by using a titania support produced by flame hydrolysis because Couves et al. teaches that many known catalyst supports having varying properties are suitable, the material being chosen to have properties specifically tailored to the particular application (page 3, lines 10-18) and Bankmann et al. teaches that the titania supports produced by flame hydrolysis have a high surface area which is desirable to provide high catalytic activity (page 226, "Raw Materials" section, first three paragraphs).

Regarding claims 2 and 9, Couves et al. teaches that generally potassium is present (page 3, line 41).

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Regarding claims 3 and 10, Couves et al. teaches that a gold compound may additionally be used (page 3, lines 32-34).

Regarding claims 5 and 12, Couves et al. teaches the catalyst and method of preparing as described with respect to claims 1 and 8 above. Although Couves et al. does not specifically teach a duration of the reduction, Couves et al. does teach that the reduction takes place "until the material is reduced" (page 4, lines 13-14). It would have been obvious to one of ordinary skill in the art at the time the invention was made to perform the reduction for a specified amount of time, since it has been held that discovering an optimum value or a result effective variable involved only routine skill in the art. In re Boesch, 617 F.2nd 272, 205 USPQ 215 (CCPA 1980). The artisan would have been motivated to perform the reduction for the duration specified by the reasoned explanation that the art teaching reduction is performed until a certain condition is reached.

Regarding claims 6-7 and 13-14, Couves et al. teaches that the reduction may be carried out with gases such as carbon monoxide, hydrogen and ethylene, which may be mixed with inert gases (page 4, lines 11-13).

Regarding claim 16, Couves et al. teaches that an ethylene, acetic acid, and oxygen containing gas may be contact with the supported palladium catalyst described to produce vinyl acetate (page 4, lines 19-23).

Response to Arguments

Applicant's arguments with respect to claims 1-3, 5-10, 12-14, and 16 have been considered but are moot in view of the new ground(s) of rejection.

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Applicant argues that the support of the Couves reference is sintered above 500°C. This is not persuasive because although no sintering step is claimed, the open claim language allows for additional steps such as this sintering step. This argument is moot as the material of the Bankmann et al. reference is identical to applicant's own. In fact, the applicant submits that the support being claimed is known by the prior art (see applicant's response filed 6/30/03, page 9, lines 8-12).

The applicant goes on to argue, regarding the admittedly known support material, the crystal structure of the titania support. Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). Although the crystal structure is not claimed, it is submitted that the Bankmann et al. reference meets these requirements as the material is identical to the applicant's own.

In addition to the above, the applicant states (pages 11-12, lines 17-1 of same response) that the Couves reference teaches away from the applicant's invention "wherein the temperature treatment is restricted to a maximum of 500°C to avoid the change in crystal structure from the high surface anatas-type titania to the low surface rutile-type titania" yet these characteristics of the invention are not claimed and therefore do not define over the art. Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). Even still, the Bankmann et al. reference meets these requirements as the material is identical to the applicant's own.

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The declaration filed on 9/12/03 under 37 CFR 1.131 has been considered but is ineffective to overcome the Couves et al. reference. The declaration is not commensurate in scope with the claims and does not adequately compare the present invention to the cited prior art. In addition, this argument is moot in view of the new grounds of rejection presented.


Conclusion

Any inquiry concerning this or earlier communications from the examiner should be directed to Colleen Cooke, whose telephone number is 571-272-1170. She can normally be reached Monday-Thursday from 7:15-5:45pm.

If attempts to reach the examiner by telephone are unsuccessful, her supervisor, Stan Silverman, can be reached at 571-272-1358. The official fax number for the organization where this application or proceeding is assigned is 703-872-9306. The unofficial fax number for this examiner is 703-746-3048.

Any inquiry of a general nature relating to the status of this application or proceeding should be directed to the receptionist, whose telephone number is 703-308-0661.

CC 2/9/2004


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